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Taxonomic comments on the Dunlin *Calidris alpina* from northern Alaska and eastern Siberia

by M. Ralph Browning

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The population of *Calidris alpina* that breeds north of the Brooks Range in northern Alaska was considered by the American Ornithologists' Union (1957) to belong to the subspecies *pacifica* Coues, 1861 of western Alaska. That northern population is now referred to either *arcticola* Todd, 1953 (Browning 1977, Cramp & Simmons 1983, Morrison 1984, Greenwood 1986), or *sakhalina* Vieillot, 1816 (MacLean & Holmes 1971, Prater *et al.* 1977, Johnsgard 1981, Hayman *et al.* 1986), the subspecies that also breeds in northeastern Siberia (Kozlova 1962, Vaurie 1965).

Calidris alpina is now known to breed also to the south on the Kamchatka Peninsula (Tomkovich 1986) and Sakhalin Island (Nechaev 1978). Tomkovich (*op. cit.*) defined the range of *sakhalina* as the Chukotsky Peninsula, Anadyr' Lowlands and Wrangel Island of northeastern Siberia, and proposed the subspecific name *kistchinski* for birds that breed on the Kamchatka Peninsula, northern Kuril Islands, southwestern Koryak Highlands, and the northwestern coast of the Sea of Okhotsk. He characterized *arcticola* as differing from *sakhalina* only in the colour of the back, and *kistchinski* as differing from *sakhalina* in the longer exposed culmen and more heavily speckled black plumage with narrower and less rusty borders of the dorsal feathers. Another subspecies, *litoralis*, was proposed by Nechaev & Tomkovich (1987) for birds that breed on northern Sakhalin Island. The name *litoralis* is preoccupied by *Tringa littoralis* Brehm, 1831, and the new subspecies was renamed *actites* by Nechaev & Tomkovich (1988). *Calidris a. actites* was characterized as the smallest (wing, culmen, weight) of the subspecies in eastern Siberia and northern Alaska and with a blacker crown than in *kistchinski*.

My earlier study (Browning 1977) included a series from Gizhiga, Siberia, as *sakhalina* but according to Tomkovich (1986) the specimens are from the range of *kistchinski*. Because of this, and because other studies (e.g. Greenwood 1986) of the species did not include specimens from the range of the newly described taxa from eastern Siberia, I have reevaluated *arcticola*, *sakhalina* and the new subspecies. This study included specimens of *sakhalina*, *kistchinski* and *actites* selected by Dr

TABLE 1

Measurements of exposed culmen and wing length of specimens of *Calidris alpina* from their breeding ranges in northern Alaska and Siberia

	Exposed culmen			Wing (chord[1,2]; flattened[3,4])		
Taxon	n	range	mean ± SD	n	range	mean ± SD
males						
arcticola	56[1]	29.8–38.7	33.6 ± 1.7	12[2]	114.1–122.7	117.7 ± 2.7
sakhalina	29[3]	30.4–36.0	32.9 ± 1.4	26[3]	111.5–122.0	117.4 ± 2.7
	7[2]	29.7–36.6	32.0 ± 2.4	7[2]	112.8–117.2	116.5 ± 2.6
kistchinski	14[3]	31.4–38.3	34.5 ± 2.1	14[3]	111.5–122.0	115.8 ± 2.8
	5[2]	30.4–31.3	33.0 ± 1.7	6[2]	113.5–120.1	115.5 ± 2.6
actites	5[4]	28.4–31.3	29.2 ± 1.2	6[4]	104.5–111.0	107.6 ± 2.7
	6[2]	28.5–29.6	29.1 ± 0.3	6[2]	105.3–110.3	107.4 ± 1.6
females						
arcticola	47[1]	31.3–39.8	36.4 ± 1.8	10[2]	113.9–121.0	117.0 ± 2.0
sakhalina	14[3]	34.5–40.4	37.0 ± 1.6	12[3]	112.5–125.5	120.5 ± 3.6
	6[2]	33.7–43.0	37.4 ± 3.4	6[2]	119.0–121.5	121.0 ± 1.4
kistchinski	9[3]	36.7–40.6	38.8 ± 1.4	10[3]	117.0–124.0	121.1 ± 2.8
	6[2]	37.3–40.0	38.5 ± 0.8	7[2]	113.5–121.4	118.5 ± 2.7
actites	1[2]	33.0		1[2]	111.2	

[1] Browning (1977).
[2] This study.
[3] Tomkovich (1986).
[4] Nechaev and Tomkovich (1987).

Tomkovich, Zoological Museum, Moscow. My evaluation of the subspecies in *C. alpina* is based on birds from their respective breeding ranges. Comments on the non-breeding distributions are limited to a few specimens that I was able to identify to subspecies; many non-breeding birds from Europe (Gromadzdka 1989), Meininger & van Swelm 1989), as well as most from Siberia and Alaska, cannot be identified to subspecies.

I found geographic variation in size between some populations. The means of measurements for the exposed culmen are similar in *arcticola*, *sakhalina* (*sensu* Tomkovich 1986, and as defined below) and *kistchinski*, including specimens from Gizhiga, and are larger than in *actites* (Table 1). Although Greenwood (1986) gave a larger mean for wing length (flattened) in *arcticola* than in *sakhalina*, I found that the wing chords of these two subspecies and of *kistchinski* are similar. The shorter wing chord in *actites* does not overlap the range of the other subspecies (Table 1). Weights of males collected in July from northern Alaska range from about 48 to 68 g with the mean about 55 to 61 g (Holmes 1966a). The mean for birds collected in June, July and August is 55.4 g (MacLean & Holmes 1971). Males from Siberia collected in July ranged from 42 to 55 g (mean 48.6) in *sakhalina*, 43.7 to 46.8 g (mean 45.8) in *kistchinski*, and three males of *actites* were 35.5, 36.0 and 40.2 g (Nechaev & Tomkovich 1987).

Geographic variation is greater in plumage colour and pattern than in size. The rusty colour of the back is slightly more reddish and darker in *arcticola* than in *sakhalina* and *kistchinski*. The edges of the back feathers are more yellow in *kistchinski* than in *arcticola* and *sakhalina*. The amount of black on the back feathers and crown is similar in *arcticola* and *sakhalina* but is greater in *kistchinski*, and is noticeably greatest in *actites*. The extent of black streaking on the upper breast is more extensive in *kistchinski* than in *arcticola* and *sakhalina* and is still more extensive in *actites*. Specimens from Gizhiga are similar to other specimens of *kistchinski* in dorsal colour and pattern. I did not find dark streaks on the undertail coverts in specimens of *arcticola*. Two of 7 males and 3 of 6 females of *sakhalina* have indistinct dark streaks, 6 of 7 males and 4 of 7 females of *kistchinski* are noticeably streaked, and 3 of 6 males of *actites* have indistinct streaks on their undertail coverts. This character is apparently subject to individual variation in the taxa from Siberia. Nechaev & Tomkovich (1987) reported that undertail streaks are present in most specimens of *sakhalina* and *kistchinski* and in only one specimen of *actites*. The extent of white on the leading edge of the eighth primary, a character contributing to wingbars (Hayman *et al.* 1986), is usually greater in *arcticola* than in *sakhalina* (Greenwood 1986). I found that the amount of white on the leading edge of the eighth primary in *kistchinski* ranges from very little to as much white as in *arcticola*. I found no white in *actites*; Nechaev & Tomkovich (1987) reported only one specimen of *actites* as having a white 'speculum' or wing-bar.

I conclude that the populations breeding in northern Alaska, eastern Siberia and Sakhalin comprise four subspecies. The subspecific characters and remarks on distribution of the subspecies follow.

Calidris a. arcticola (type locality Point Barrow, Alaska) differs from *sakhalina* by its greater weight, greater amount of white on the leading edge of the eighth primary, and slightly more reddish and darker rust colour dorsally. *Calidris a. arcticola* is redder on the back and has fewer black feathers on the back and crown than in *kistchinski* and *actites*. Birds from northern Alaska also lack the black streaks on the undertail coverts usually present in the subspecies from Siberia. The breeding range of *arcticola*, north of the Brooks Range, Alaska, is separated by about 260 km from the range of *sakhalina* and about 300 km from the range of *pacifica*. Five specimens (USNM 93208–93211) of *arcticola* from Point Barrow, Alaska, in winter plumage are darker grey dorsally and the few rusty feathers are redder than 4 specimens (USNM 81415, 81417, 348997, 348998) of *sakhalina* from the Chukotsky Peninsula. A specimen (USNM 465837) collected on Little Diomede Island, Alaska, in June (Kenyon & Brooks 1960) is an example of *arcticola*. Breeding *arcticola* banded at Point Barrow were recaptured in October at Cape Lazarev, Siberia, and Sakhalin Island (Norton 1971). Greenwood (1984) considered *arcticola* to migrate only to Asia. A series (USNM 526466–526471) collected near Seoul, Korea, in April are typical *arcticola*.

Calidris a. sakhalina differs from *kistchinski* by its darker (less golden) rusty back and reduced amount of black on the crown and upper breast. This subspecies differs from *arcticola* as characterized above and is less black and larger than *actites*. Specimens in winter plumage have fewer black feathers dorsally than do *kistchinski*. The western limit of the breeding range of *sakhalina* is dependent on the acceptance of *centralis*

Buturlin, 1932 of the Yakutsk region, a subspecies not widely recognized (Ferns 1981, Greenwood 1986). A female (ZIAS 160504) from Cape Chaplin, Chukotsy Peninsula, identified as *pacifica* by Portenko (1972), is actually an example of *sakhalina*.

Tomkovich (1986) concluded that the description of *sakhalina* by Vieillot (1816) and the painting of a Dunlin by Tilesius (*in* Krusenstern 1814), which Vieillot cited, cannot be identified to any particular subspecies of *C. alpina*. Although Tomkovich contacted most European and Asian museums, he could not locate Tilesius' specimen of *C. alpina*. (Tomkovich did not list the Paris Museum among the many museums he contacted, nor did he note that Svetovidov [1981] had reported that Cuvier received several holotypes from Tilesius from Petersburg that remained in Paris. Nonetheless, there is no record in the Paris Museum of Tilesius' specimen of *C. alpina* [C. Erard, in litt.].) I agree with Tomkovich that the name *sakhalina*, as described, is a *nomen dubium*. Tomkovich (1986) preserved the name *sakhalina* by designating as a neotype an adult male in the collection at the Zoological Museum of Moscow State University. The locality of the neotype, and thus the type locality of *sakhalina*, is the headwaters of the Kanchalan River (75 km west of Egvekinot), Chukotsky Autonomous Region.

Calidris a. kistchinski (type locality Moroshechnaya River, western Kamchatka) is less black above and larger than *actites* and is more black dorsally with the edges of the back feathers more yellow than in *arcticola* and *sakhalina*.

Calidris a. actites (type locality shore of Chayvo Bay, Sakhalin [Island]) differs from the other subspecies in having more feathers edged with black, especially on the crown, and in usually lacking white on the leading edge of the eighth primary. The rust colour of the back of five of the seven specimens available is paler than in *kistchinski*. Specimens of *actites* are lighter in weight, and are shorter in exposed culmen and wing chord than the other subspecies in this study.

Two adult males (USNM 165045, 165046) from St Lawrence Island, Alaska, where *pacifica* breeds (Sauer & Urban 1964), and a female (UA 5615) from Attu Island, Alaska, are unlike *arcticola* and *pacifica* in having faint black streaks on their undertail coverts. The three specimens are within the range of variation in size for all western subspecies but *actites*. The moulting inner primaries of the two males, collected 13 July, suggest that the birds may have bred on St Lawrence Island; according to Greenwood (1983), birds from Siberia and Alaska moult while on the breeding grounds. However, some birds from northern Alaska migrate before completion of primary moult (Holmes 1966b, 1971). Because *kistchinski* and *pacifica* moult at the same time as reported by Holmes (1971) for birds from northern Alaska (P. S. Tomkovich, *in litt.*), some individuals of *sakhalina* may also migrate before moulting all of their primaries. Based on colouration and moult, the two males are most likely darker representatives of *sakhalina*; based on colouration of the plumage, the female collected 1 June is most similar to typical *kistchinski*. Although the three specimens cannot be positively identified to subspecies, they probably represent birds from the populations that breed in eastern Siberia. Other Palearctic taxa are known from St Lawrence Island (Fay & Cade 1959, Sealy *et al.* 1971), and from other islands off Alaska (e.g. Thompson & DeLong 1969, Byrd *et al.* 1974, Gibson 1981, Byrd & Day 1986), and from the nearby mainland (Kessel & Gibson 1976).

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Discovery of the nest of Humblot's Flycatcher *Humblotia flavirostris*

by M. Herremans, M. Louette & J. Stevens

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Humblot's Flycatcher forms a monotypic genus, probably close to *Muscicapa* (Benson 1960). The species is confined to a few thousand hectares of mountain forest on the slopes of the Karthala volcano (Louette 1988), which dominates the southern half of Grand Comoro island. Although confiding and rather common, nothing is known as yet about the species' breeding habits, despite the breeding grounds having been